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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,828	01/23/2002	Philipp Jung	02894-532001	7798

26161 7590 04/09/2003

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

DUDA, RINA I

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 04/09/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,828

Applicant(s)

JUNG ET AL.

Examiner

Rina I Duda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-35 and 63-70 is/are rejected.
- 7) ☒ Claim(s) 26-31, 36-62 and 71-78 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 November 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley (US Patent 4739346, of record), Gruner et al (US Patent 5065341, of record), and Ueda et al (US patent 4965504, of record).

Claims 32, 33, Gruner et al teach a printer for a personal computer comprising a driving mechanism including an electric motor 1 and a control stage containing regulator 4 and amplifier 8 for controlling the supply of power to the motor (as described in column 13 lines 8-14), said control stage supplies the motor (during off periods) with an energy signal that causes the motor to act as an electroacoustic transducer emitting audible signals, as described in column 4 lines 48-53 and column 8 lines 17-22. Gruner et al fail to teach an analog signal being applied to the motor.

However, Buckley discloses a digital-to-analog converter connected to a digital output in order to convert said digital data into an analog signal with the characteristics of the input signal (such as the frequency), as shown in figure 6. Therefore, it would have been obvious to use a digital-to-analog converter to convert the output of the control stage of Gruner et al into an analog output signal, since some electric motors operate with voltages that vary continuously instead of voltage pulses.

Although Gruner et al teach a control stage causing the motor to emit audible signals; they do not specify that those signals would be in the form of speed or music.

However, Ueda et al describes in column 6 lines 31-57 describe a way of making an electric motor produce audible speech or music.

Therefore, it would have obvious to use the method of making audible speech or music taught by Ueda et al in the motor control stage describe by Gruner et al in order to obtain a system capable of informing a user of possible malfunction in the system.

In reference to claim 34, Buckley discloses a stepping motor for driving a printer, as described in the abstract.

3. Claims 63-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckley (US Patent 4739346, of record) and Gruner et al (US Patent 5065341, of record).

Claims 63 and 65-68, Gruner et al teach a printer for a personal computer comprising a driving mechanism including an electric motor 1, which is enclosed by a housing and a control stage containing regulator 4 and amplifier 8 for controlling the supply of power to the motor (as described in column 13 lines 8-14), said control stage supplies the motor (during off periods) with an energy signal that causes the motor to act as an electroacoustic transducer emitting audible signals, as described in column 4 lines 48-53 and column 8 lines 17-22.

Claim 64, Buckley discloses a digital-to-analog converter connected to a digital output in order to convert said digital data into an analog signal with the characteristics of the input signal (such as the frequency), as shown in figure 6. Therefore, it would

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have been obvious to use a digital-to-analog converter to convert the output of the control stage of Gruner et al into an analog output signal, since some electric motors operate with voltages that vary continuously instead of voltage pulses.

Claim 69, Buckley discloses a stepping motor for driving a printer, as described in the abstract.

4. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gruner et al (US Patent 5065341) and Buckley (US Patent 4739346) as applied to claims 63-69 and further in view of McCarthy (US Patent 4042077)

Although the combined references above disclose a motor with a rotor having a braking reaction, they fail to teach a specific device capable of maintaining the motor in the rest position. However, McCarthy discloses a braking device 20 connected to the motor 24 for maintaining the motor in the rest position. Therefore, it would have been an obvious design choice to use the braking device of McCarthy in the system described by Gruner et al and Buckley, since the braking device can be adjusted to maintain a desired braking force.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gruner et al (US Patent 5065341, of record), Buckley (US Patent 4739346, of record), and Ueda et al (US patent 4965504, of record) as applied to claims 32-34 above, and further in view of McCarthy (US Patent 4042077, of record)

Although the combined references above disclose a motor with a rotor having a braking reaction, they fail to teach a specific device capable of maintaining the motor in the rest position. However, McCarthy discloses a braking device 20 connected to the

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motor 24 for maintaining the motor in the rest position. Therefore, it would have been an obvious design choice to use the braking device of McCarthy in the system described by Gruner et al, Buckley, and Ueda et al since the braking device can be adjusted to maintain a desired braking force.

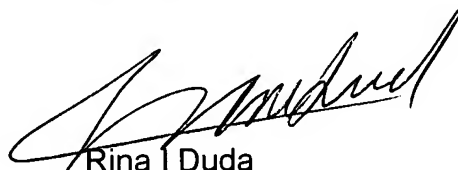
Allowable Subject Matter

6. The following is a statement of reasons for the indication of allowable subject matter: Claims 26-31, 36-62 and 71-78 are found allowable because they recite limitations which as described in the previous office action dated 7/17/02 were not taught by the prior art.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rina I Duda whose telephone number is 703-305-0722.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached at 703-308-3370. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Rina I Duda
Examiner
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